

## REMARKS

The Office Action mailed February 5, 2008, has been reviewed and carefully considered. Claims 1, 3, 5, 7-8, 11, 14-15, 18, 25, 30 and 31 have been amended and claims 2 and 6 have been canceled. Claims 1, 3-5 and 7-31 are pending.

In paragraph 2 on page 2 of the Office Action, claims 1-8, 10-11, 13-15 and 18-31 were rejected under 35 U.S.C. § 102(b) over Niwa (U.S. Patent No. 5,371,873).

In paragraph 3 on page 10 of the Office Action, claims 9 and 12 were rejected under 35 U.S.C. § 103(a) over Niwa.

In paragraph 4 on page 10 of the Office Action, claims 16-17 were rejected under 35 U.S.C. § 103(a) over Niwa in view of Popelka (U.S. Patent No. 6,081,883).

Applicants respectfully traverse the rejections, but in the interest of expediting prosecution have amended the claims to more particularly recited the embodiments of the invention. Applicants claim a method for increasing print job throughput in printer spooling by “monitoring the storage device to determine when print data associated with the print job becomes available on the storage device, reading the print data associated with the print job from the storage device upon determining at least a portion of print data associated with the print job on the storage device is available for printing, while concurrently writing print data associated with the print job to the storage device and suspending reading print data associated with the print job from the storage device upon detecting a predetermined condition associated with print data associated with the print job.” The print data associated with the print job that is read from the storage device is printed concurrently as print data associated with the print job is being written to the storage device.

In contrast, Niwa specifically describes the processing of data for printing by first storing data in a storage area, and THEN printing the stored information. According to Niwa, data is written to the storage area and then printed.

The Office Action states that Niwa, at column 10, lines 29-32, discloses that the printing operation and the data transfer operation are executed simultaneously. However, the data transfer operations here does not refer to the storing of received print data on the storage device. The automatic printing operation referred to at column 10, lines 29-32 is clearly described at column 7, lines 51-56. Here, Niwa describes that, after receipt of the automatic printing command for setting the automatic printing operation, data is written to the storage area, and only then is the data printed automatically.

Niwa describes its laser beam printer 1 by stating, “[t]he bit map output/select circuit 30 selectively carries out the following three data procedures for the bit map image data produced and output by the bit map processing circuit 22. The first procedure is to write the bit map image data into the storage unit 21 in accordance with an instruction from the host computer 2. The second procedure is to send the bit map image data to the printing device 23 so that a corresponding image is printed on a sheet. The third procedure is to send back the bit map image data to the host computer 2,” column 5, lines 11-21. Niwa does not teach performing any of the procedures concurrently.

The Office Action incorrectly asserts that Niwa’s statement “[w]hen the automatic printing operation is set, it is possible to simultaneously execute the printing operation and the data transfer operation at reduced times, as in the case of the non-registered automatic print,” at column 10, lines 29-31, anticipates Applicants’ application. In Niwa, “[a]fter registering the automatic print processing pattern, data which is supplied from the host computer 2 with the data

name that matches the registered pattern is written into the storage unit 21 of the laser beam printer 1, and is then printed automatically,” column 7, lines 54-56. In order to carry out automatic printing in Niwa, the bit map output/select circuit 30 must carry out at least two discrete procedures: “write the bit map image data into the storage unit 21,” and “send the bit map image data to the printing device 23 so that a corresponding image is printed on a sheet,” see column 5, lines 11-21 and Fig 2. Niwa does not teach, disclose or suggest “reading the print data from the storage device concurrently with the writing of the print data to the storage device.”

Popelka fails to remedy the deficiencies of Niwa. Popelka focuses on a “processing system with dynamically allocatable buffer memory.” Popelka discusses a write buffer 230 where “concurrent streams of data can be supported in and out of the write buffer 230,” column 11, lines 60-61. Popelka does not discuss concurrently reading and writing a print job’s associated print data, however. Therefore, Popelka does not teach, disclose or suggest “reading the print data from the storage device concurrently with the writing of the print data to the storage device”

Niwa and Popelka, alone or in combination, fail to teach, disclose or suggest all of the elements recited in the independent claims of Applicants’ application. Thus, the Section 102 rejection is improper and should be withdrawn. Because Niwa in view of the prior art or Niwa and Popelka in combination, fails to teach, disclose or suggest all of the elements of the claims from the instant application, the Section 103 rejection is improper. Accordingly, applicants request that the Section 103 rejection be withdrawn.

Dependent claims 2-17, 19-24 and 26-29 are also patentable over the references, because they incorporate all of the limitations of the corresponding independent claims 1, 18 and 25.

Further dependent claims 2-17, 19-24 and 26-29 recite additional novel elements and limitations. Applicants reserve the right to argue independently the patentability of these additional novel aspects. Therefore, Applicants respectfully submit that dependent claims 2-17, 19-24 and 26-29 are patentable over the cited references.

On the basis of the above amendments and remarks, it is respectfully submitted that the claims are in immediate condition for allowance. Accordingly, reconsideration of this application and its allowance are requested.

If a telephone conference would be helpful in resolving any issues concerning this communication, please contact Attorney for Applicant, David W. Lynch, at 865-380-5976.

Respectfully submitted,

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